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ANTHROPOLOGICAL NOTES

ON

NEW GUINEA.

BY

Peter
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Anthropological Notes *on* New Guinea. By Dr. Comrie, R.N.

Having visited, while belonging to H.M.S. "Basilisk," in 1874, that portion of New Guinea lying between East Cape and Astrolabe Bay, and finding the Aborigines living in the Stone Age, and having previously to the visit of the "Basilisk" apparently had no communication with Europeans, I was induced to make some brief notes of their manners and customs, to form a collection of crania, weapons, implements, and other objects of ethnological interest, which are now submitted for the information of the Society.

Crania.—These, fifteen in number, were collected in the neighbourhood of East Cape, on the mainland, and the immediate adjacent islands. As will be observed, the lower jaws are, with two exceptions, wanting—an omission not arising from neglect in collecting, but owing to the lower jaw being used by the Papuans as a bracelet, a band of grass connecting the rami completing the circle. These ornaments, of which several are shown, are very much prized by their possessors, and were very difficult to procure. As far as could be ascertained, the body is first buried, and after some considerable period has elapsed it is taken up, the head and two upper vertebræ (axis and atlas) removed, the trunk being re-buried. The skull is cleaned, and in some cases put past on the roof of the dwelling, wrapped up in plantain leaves, in others thrown into the woods, the lower jaw being made into a bracelet, while the vertebræ are attached to the end of a pig-tail (specimen shown), and so worn by their fortunate possessors.

As I have appended a table of measurements, made after Prof. Busk's method, and with his valuable instrument, I do not deem it within the scope of this paper to enter minutely into those, referring any one interested to the table, which speaks for itself. The general characteristics of these crania, as evinced by the more important indices, appear to be:—*Latitudinal.*—

PAPUAN CRANIA FROM SOUTH-EAST COAST NEW GUINEA.

Collected and measured by P. COMRIE, *Staff-Surgeon, R.N.*

PLACE.	Alphabetical Nos.	Sex—Presumptive.	Age.	Cubic Capacity in Inches.	Extreme.			Greatest Breadth.						Radii.						Length.		Longitudinal Arcs.				Transverse Arcs.				Horizontal Circumference.	Proportion Length = 100.					Nasal.			
					Length.	Breadth.	Height.	Frontal.	Parietal.	Occipital.	Zygomatic.	Inter Orbital.	Palatal.	Maxillary.	Fronto Nasal.	Frontal.	Vertical.	Parietal.	Occipital.	Palatal.	Basi Cranial.	Frontal.	Parietal.	Occipital.	Sum of 3.	Frontal.	Vertical.	Parietal.	Occipital.		Of Breadth.	Of Height.	Occipital Radius	Fronto Nasal.	Maxillary.	Facial Angle.	Length Max.	Breadth Max.	Proportion Length = 100
Lydia Island.....	A	M.	Adult	83	7.3	5.3	5.5	4.3	5.1	4.2	4.9	1.5	1.3	4.2	3.9	4.6	4.9	5.	4.3	2.2	4.2	4.9	5.3	6.	16.2	12.4	12.7	12.6	9.4	20.3	72	75					2.	1.1	55
China Straits ...	B	M.	„	73 app	7.1	5.	5.4 app.	4.3	5.0	3.8	5.	1.2	1.4	4.1	3.8	4.5	4.7	4.8	3.9	1.6	Broken.	5.1	4.9	6.2 app.	16.2	12.	12.8	12.8	8.6	19.6	70	76					2.1	1.1	52
Lydia Island.....	C	M.	„	65	6.8	4.6	5.4	3.8	4.5	3.7	4.3	1.1	1.4	4.1	3.7	4.3	4.4	4.5	3.9	2.3	3.9	4.4	4.8	5.9	15.1	11.6	11.2	11.8	7.6	18.2	68	79					1.8	1.	55
D'Entrecasteaux Island.	D	F.	„	89	7.	5.4	5.7	4.4	5.3	4.1	5.	1.3	1.5	4.	3.4	4.2	4.7	4.8	4.2	2.1	Broken.	4.6	5.1	6.2	15.9	11.4	12.6	13.	8.8	19.9	77	81					2.	.9	45
Do. (Tub Bay)	E	M.	„	72	6.9	4.9	5.3	4.1	4.9	4.	4.6	1.	1.3	4.1	3.7	4.4	4.6	4.7	3.9	2.3	3.9	4.6	5.3	5.5	15.4	12.	12.2	12.6	8.8	18.6	72	77					2.	1.	50
Do.	F	Ind	„	75 app	6.6	5.3	5.6	4.2	5.2	3.8	4.8	1.1	1.5	3.7	3.4	4.4	4.7	4.8	3.8	2.1	3.7	4.9	5.4	5.1	15.4	11.8	13.	12.8	9.	19.	80	84					1.6	1.	56
Riche Island—(Traitor's Bay)	G	M.	„	64 app	6.3	5.1	4.9	4.2	5.	3.8	4.8	1.3	1.4	4.	3.6	4.2	4.4	4.4	3.8	2.2	3.8	4.5	4.9	Broken.	...	11.6	12.3	12.6	8.6	18.4	81	77					1.9	1.	52
Lydia Island.....	H	M.	„	74	7.	5.	5.5	4.1	5.	3.9	4.9	0.9	1.6	3.9	3.6	4.3	4.7	4.8	4.3	2.2	3.8	4.8	4.9	6.3	16.	11.6	12.6	12.6	9.	19.1	71	78					1.9	.9	47
Do. do.	I	Ind	„	76	6.9	4.8	5.6	4.1	4.8	3.8	Broken	0.9	1.1	4.1	3.6	4.4	4.8	4.8	4.	2.3	3.7	5.	5.1	5.7	15.8	11.6	12.4	12.6	8.6	18.8	71	79					2.	1.	50
Moresby Island...	K	F.	„	69	6.6	4.8	5.3	3.9	4.8	3.6	4.5	1.5	1.5	3.9	3.3	4.	4.4	4.5	3.7	2.1 app.	3.5	4.7	5.1	5.4	15.2	11.	11.6	12.4	9.	18.2	73	80					1.8	1.	55
S. E. Cape	L	M.	„	68	6.7	4.8	5.2	3.7	4.8	4.1	4.8	1.1	1.4	4.	3.5	4.1	4.5	4.6	3.9	2.2	3.5	4.5	5.3	5.6	15.4	10.6	11.6	12.	10.	18.5	72	77					1.7	1.	59
Teste Island	M	M.	„	84	7.1	5.1	5.5	4.3	5.1	4.	4·6	1.	1.4	3.7	3.5	4.6	4.9	4.9	4.1	2.1	3.7	5.3	5.4	5.7	16.4	11.8	12.6	12.8	8.8	19.2	72	77					1.7	1.	59
Skelton Island ...	N	M.	„	80	6.7	5.1	5.5	4.2	5.	3.8	4.9	1.2	1.3	4.	3.7	4.3	4.6	4.7	3.8	2.1	3.6	4.9	5.3	5.4	15.6	11.9	13.	12.8	8.6	19.1	76	82					2.1	1.	47
Lydia Island	O	M.	„	74 app	6.7	5.4	5.4	4.3	5.4	3.8	4.8 app.	1.	1.2	3.6 app.	3.5	4.3	4.8	4.9	3.7	Broken.	3.4 app.	5.1	5.	5.4	15.5	12.	12.8	13.	8.4	18.7	80	80					1.8	1.	55
Possession Bay ...	P	F.	„	Broken	6.9	4.7 p	4.8 app.	3.9	4.7	3.4	4.7	0.9	1.4	4.1	3.7	4.2	4.5	4.5	3.5	1.8	Broken.	4.7	5.	Broken.	...	11.4	12.	12.3	9.4	19.	68	70					1.8	.9	50
Sums	15	10	Male.	104.6	102.6	75.3	80.6	61.8	73.6	57.8	66.6	17.0	20.7	59.5	53.9	64.8	69.6	70.7	58.8	29.6	44.7	72.0	76.8	74.4	...	174.7	185.4	188.7	132.6	284.6	1103	1172					...	...	...
		3	Female																																				
Means	...	2	Indeterminate	7.5	6.8	5.	5.4	4.1	4.9	3.9	4.8	1.1	1.4	3.9	3.6	4.3	4.6	4.7	3.9	2.1	3.7	4.8	5.1	5.7	...	11.6	12.4	12.6	8.8	19.	73.5	78					...	...	...

With one exception, G, they all may be classed as dolichocephalic, while G may more probably be called sub-brachycephalic; the mean index for the whole number being 74, thus bringing them within the limits of well-marked dolichocephalicism, or long-headed skulls, and although considerable individual variation is shown, still the aberrant tendency is no stronger here than as evinced in other collections, such as those of V. Baer, B. Davis, Meyer, &c. *Altitudinal.*—As regards this index, they all come under the head of what Broca calls megasemic, giving a mean of 78, and thus showing a strong affinity to the negro type. There is also here one exception, P, but which, owing to the base being broken, the measurement of the height was only approximate, and in this way does not count for much. *Nasal index.*—There is here a considerable variation not bearing out Broca's views, seven only being platyrrhine, five mesorrhine, and the remainder leptorrhine. *Capacity.*—This ranges in amount from 64 cubic inches up to 83, giving a mean of 75. *Prognathism.*—This also varies, but in the majority is pretty strongly pronounced. *Peculiarities.*—In A, synostosis of the sagittal suture has taken place, and has given rise to a scaphocephalic deformity. Wormian bones occur in the lambdoidal sutures of E, F, and G. The occipital protuberance is strongly developed in C and O, while the parietal is equally so in D. The denticulation of the sutures generally are more complex than usually occurs in savage races. Generally the result of the measurements would show the strong affinity of the Papuan to the Negro, and not at all favouring the idea of an intermixture with the Polynesian element. Since examining my own collection I have compared the measurements with those of Dr. Meyer, as given in the catalogue of the Dresden Museum (as far as the true Papuan crania are concerned), of which he gives twenty-three collected in Geelwink Bay, the mean latitudinal index being 72, while of ten in the College of Surgeons the mean is 74. The general type of skull is that of an extended, but narrow and compressed form, forehead small and low, occiput flattened, and zygomatic space not extensive. The top in all is ridge-like, a well-marked saggital crest being perceptible. The temporal lines are well defined, and the superciliary ridges strongly developed. The upper teeth project over lower, but are not ground down, and are strong and in a good state of preservation. The height of the skull in all exceeds the breadth. The nasal bones are short and depressed, the anterior nasal openings wide.

Stature.—As the result of about twenty measurements of individuals, all male, I found the height to average about 5 feet $1\frac{3}{4}$ inch, the extremes being 4 feet 7 inches and 5 feet 4 inches.

The mean length of arm averaged 29 inches. The girth of the upper arm 9½ inches, of the forearm 10 inches. The length of leg 35 inches, girth of thigh 18 inches, of calf 12 inches. Circumference of chest 31½ inches. The feet are flat, and legs inclining rather to be bow or sabre-shaped, the calf placed high; in all the large toe was long, and stood out at an angle from the foot, more like a thumb, being capable of abduction and adduction, and the prehensile power thus possessed was frequently manifested in seeing natives attempting to walk off with small objects (to them of priceless value), such as nails, or small pieces of iron lying about the decks, while the attention of the sailors was supposed to be relaxed. The chest was, as a rule, well developed, and capacious in proportion, much more so than the limbs. They appeared to climb trees with great facility, planting the soles of the feet flat against the tree, and alternately in ascent apposing the planes of the hand and soles of the feet, without approximating either chest or legs, and in this way rapidly ascending the smooth branchless trunk of a cocoa-nut tree on all fours, like a cat.* Their favourite attitude was squatting with the hams against the heels, in which position the coccygeal portion nearly touched the ground. While standing, a common position was with one arm across the back, grasping the opposite upper arm. Their gait was shuffling, and in running they were easily beaten by our sailors, and in lifting weights or throwing heavy stones, they were very inferior to Europeans.

Hair.—Grows to about a foot in length, and is crisp and frizzly, in colour black, but often, owing to the use of burnt coral and wood ashes, assumes a reddish tint. The fashion of wearing the hair was varied; in most cases amongst males it assumes what may be termed a mop shape, while others cultivate cork-screw ringlets, and the natives about Huon Gulf and Astrolabe Bay cover it with clay and leaves interplaited, while at Lesson Island it was drawn out to a point at the crown, and confined in a conical case. The true Papuan dandy, however, wears it frizzled out in an immense mop, which is carefully combed out for hours daily, and at night is kept free from disturbance by the use of a wooden block as a pillow, of which specimens, elaborately carved, are shown, on which only the nape of the neck rests. A long comb with flying streamers inserted into the back hair, and a hibiscus blossom placed over the right ear, complete this, the main part of the toilette (specimens of combs and pillows shown). The women and children have their hair closely cropped, the latter often shaved, at least up to the

* "On road the white man walks with creaking shoes,
He cannot walk up trees nor his *finger feet* use."

Translation of Native Song in Mitchell's expedition to Eastern Australia.

age of about ten or so, about which time the rite of circumcision takes place; after which, in boys, the hair is allowed to grow and carefully tended. In some places the women wear false fronts and also ringlets. The assertion is constantly made that the hair, in the case of the Papuan, grows in tufts: this I have been unable to verify, as in the case of the women and children, where the hair was kept close cropped, no trace of this could be seen, although I frequently looked for it. No doubt in those wearing the hair in ringlets, some such appearance is noticeable, but is entirely owing to artificial means. Having collected numerous specimens of hair while on the coast of New Guinea, I was desirous to ascertain whether Pruner Bey's account of the microscopical appearance of Papuan hair was correct. The microscopical appearance, as seen logitudinally, may be described: Cortex more or less transparent, the pigment appearing absent from cortex and confined to medulla—an appearance not usual in the strongly pigmented hairs of white races. Seen transversely, the section is elliptic and flattened, and borders irregular, one of the sides appearing curved inwards at several spots. This gives a distinctive tape-like character, which, as Pruner Bey states, denotes the greatest flattening he has seen on human hair, and quite different to other races in which the section is more or less oval—a point of great significance.* The beard is scanty and crisp, in most cases plucked out and shaved; and as regards the body, with exception of the back of the neck and back, there is no great amount of hirsuteness.

Physiognomy.—Forehead narrow, and compressed at temples, superciliary ridges very prominent, nose aquiline, expanded at alæ, the tip being somewhat elongated, and hiding the upper lip, mouth large, lips thick and protruding, eyes large but superficial, upper row of teeth slightly projecting over lower.

Skin and Colour.—Since Mariner's time, the Papuan skin has been described "as peculiarly harsh." This is not accurate, and only applicable to those suffering from what is known as "Tukelau ringworm"—a very prevalent disease all over the Pacific, giving rise to a scaly condition of skin. I had, while serving in H.M.S. "Dido," a very good opportunity of studying this disease, as affecting natives of New Ireland, while it appears to be endemic as in New Guinea, although the name is derived from Bowditch Island, otherwise called Tukelau, one of the Line Islands, and is a name generally applied to the Line Islanders. As regards colour, the natives of the S.E. coast of

* Through the kindness of Professor Broca I had lately in Paris numerous transverse sections of Papuan hair made by a new process, with which I had hoped to have illustrated this part of the paper, but I have been unable to get the drawings prepared in time.

New Guinea may be said to vary from rusty black to a yellowish brown, while the natives of the immediate neighbourhood of East Cape are of a lightish brown, giving rise to the impression that there has been some intermixture of blood with the lighter Polynesian race, such as is the case in Fiji, where a cross has taken place with the Tongan. This is so probable and easy a solution, that one felt very much inclined to adopt it, especially at first, but after observation, noticing in the same villages and apparently in the same family, individuals exceptionally dark, the features and hair even in the lighter individuals remaining unaltered (which is not the case in the crossing of the Tongan and Fijiian, where the hair becomes much less frizzled), I was forced to the conclusion that the lighter coloured people were the same race. All over the Pacific you find a difference in appearance between coast and bush tribes, such as occurs between the interior Indians of N. America, who live by hunting, and are much darker than the fish-eating coast tribes. If the opinion of the more advanced anthropologists is of any value, viz. that hair, next to language, is the most unerring indication of race, then the identity of the light and dark Papuan is the same, as the hair in both is equally flattened and tape-like, the amount of flattening being so evident that it can be observed with a common lens. As regards the colour of the irides, this varies from black to brown, the sclerotic in all being somewhat of a turbid or yellowish colour. I may also add that a Malay intermixture will not account for change of colour, as we found the higher we advanced up the coast, and the nearer to Malay occupation, the Papuan to become much darker, more negroid in aspect and savage in disposition.

Diseases.—Those observed were elephantiasis affecting the scrotum and lower extremities, the form of ringworm already referred to, and which is believed to arise from the deposit of the larvæ of some dipterous insect: as good observers have stated, swarms of flies have been seen to emerge from the diseased patches, at least this is stated to be the case in Samoa. A few cases of lupus were noticed, and at Humboldt Bay, unmistakeable evidence of syphilis presented itself in shapes of scars on penis, buboes, and cicatrices in groins, the scars being of a lighter colour than the surrounding integument. A few spear-wounds were seen, jagged and torn, and traces of attempted Talicotian operations, where the lobe of the ear had given way under its load of ornaments, and where the edges had apparently been rawed and brought together.

Government and Religion.—In regard to this head very little information could be procured. Each village seemed to be independent and have its own chief; no buildings appeared to be

set apart for any public purpose, and with exception of a small wooden figure generally stuck up in the gable end of the houses, there was no trace of anything approaching idols, or even fetishism. As, however, in some cases bones and skulls, carefully wrapped up, were found in the houses, this may be taken for what it is worth, as regards some form of worship of ancestors, which certainly exists in other Papuan islands, such as Vate or Sandwich.

Dwellings.—These are almost invariably raised upon piles from 10 to 25 feet high, even when built upwards of a thousand feet above the sea level, the position of many of the villages taken in all probability to avoid the malaria of the coast, or for purposes of defence. The gable end where the principal entrance is situated faces the sea, and has a platform in front where the men spend the most of their time. At the other end is also a door and platform used by the women. Access is had to these platforms from without by notched logs. Over the principal entrance is hung bones and skulls of the dugong, turtle, pig, marsupial bones of kangaroo, cuscus, &c., all attesting the wealth of the owner, as showing the amount of provisions he has thus got through, while sometimes human skulls are hung up as indications of his prowess as a warrior, as also of anthropophagic propensities. The interior has no partition, but consists of one apartment occasionally divided by mats hung up, the furniture generally consisting of cocoa nuts for drinking out of, baskets for containing food, large coarse dishes of earthenware for cooking purposes, a wooden pillow or two made out of pieces of solid wood and quaintly carved. Against the wall are arranged spears and clubs, and fishing nets; while in the centre a fireplace is built up of stones on which the cooking is done, the floor being laid with small planks with wide interspaces allowing all rubbish to fall through. The taste of the individual is often conspicuous in many little arrangements, such as stands with hooks for hanging up baskets and other articles, made out of the lopped branches of a dwarf stem, not unlike what we have in our own halls. The only domesticated animals observed were a dun-coloured dog of a wolfish appearance, with long ears and a sharp muzzle, not barking, but giving utterance occasionally to a most dismal howl; the dogs are fed here, as elsewhere in the Pacific, on cocoa nuts, which may account for the long sharp muzzle they all have got; varieties of cuscus, kept as pets, and trained, I was informed by eye-witnesses, to search for vermin in the capillary decorations of their proprietors, abounded in every village. I cannot, however, speak as to this accomplishment from my own observation. The only other domesticated animal was the pig, which was almost allowed to run wild and

was tolerably numerous. The villages were often situated some distance above the sea level and surrounded by groves of cocoa nuts, and where at some distance from the sea, temporary huts existed on the coast for the purpose of residence while fishing and shell collecting: these were much less elaborate in their construction, and not built upon piles.

The canoes all had outriggers, and were frequently of considerable size and length. When from 30 to 40 feet in length, not an uncommon size, they were constructed of a single tree hollowed out, the sides, bow, and stern being built up with planks, the stem and stern having carved figure-heads generally of a bird resembling the cassowary; a raised platform was built amidships, on which the chief was seated, and here also were placed the cooking utensils of earthenware. The sail was of cocoa-nut matting, hoisted up to blocks most elaborately carved to resemble human figures. The paddles were also carved, and were used in the standing position. Catamarans of hewn logs were also common.

Social Customs.—The usual sign of friendship was squeezing the nostrils with the forefinger and thumb of the left hand and pointing to navel with index finger of right, generally making one or two audible grunts during intervals, and sometimes a word was used like vācŏus, but this was rare. On other occasions a dog was brought alongside, and its brains dashed out by taking it up by the hind legs and striking the head against the ship's side, while higher up the coast, waving branches of some kind of palm, and sprinkling the head with sea water, was the equivalent for peaceful intentions. On all these occasions the heralds put on a smile, child-like and bland. The expression of astonishment was a prolonged o-o-o, holding their breath, and stroking gently the left arm with the right. When angry they uncovered the canine teeth and spat, and frequently I have noticed small children alternately yell and spit when in our presence and alarmed. The mode of calling attention was by a prolonged hiss or vigorously striking the left forearm with the sharp edge of the right hand. When disgust was shown, as given rise to by the offer of tobacco or rum, they used to pout, or imitate being sick. Their great expression of friendship was walking hand in hand with those they took a fancy to, occasionally making presents, but always expecting something very much more valuable in return. When on shore they were always ready to supply us with cocoa-nut milk without expecting any remuneration, but alongside the ship a *quid pro quo* was always demanded.

Mourning was signified by the hair being cut short, blackening the face and body with plumbago, wearing no ornaments

except a wicker armlet on left upper arm, while in case of chiefs a series of cords made from Rizomorpha were worn round the neck and hanging over the shoulders like aiguillettes of French officers. The houses in which death took place were pulled down and nothing but the piles and platform left standing, on which the mourners congregated from day to day.

The forms of burial were of two kinds—in one a grave was made in the ground, the surface being slightly raised and planted round with crotons, in the centre of which space broken pottery was placed, while on some neighbouring tree helmet-shells and bunches of human hair were hung. In the other form an oblong box roofed over, and raised on piles about three feet from the ground, contained the body. Both forms of graves were often found in close proximity to one another, generally in the outskirts of the villages. The native name for grave was *vata*. They had great faith in a form of philtre or love charm, which on rare occasions was mysteriously shown, and on which a high value was placed, nothing short of an axe being accepted. It is an odoriferous gum, which they informed us required to be smeared over the face, after the use of which the opposite sex would deny them nothing. This was explained by characteristic signs, the native name being Tūbāl.

The custom of Tabu was in some places observed, carried out by twisting round cocca-nut branches or placing cocoa nuts on the end of sticks stuck in the ground; nearly all deserted houses had a branch of cocoa nuts placed across the doors. Circumcision was general, and appeared to be performed by a straight incision through the dorsum of prepuce, there being no ablation of supernumerary skin or mucous membrane; the cicatrices left were very unsightly and did not speak at all highly for the surgical skill of the operator. There was no slavery noticed, such as is common in the Solomon Islands and New Ireland, and from what could be ascertained single wives were the rule, who seemed to hold their own, and were invariably consulted on all the trade transactions. They appeared intensely jealous of their women, and on first arrival at their villages the men invariably ordered them all away; not that they wished to go, as very often they could be observed peeping round corners, but after a time they were allowed to return, at first remaining at a respectful distance off, but in course of time by small presents of red cloth to the children we used to conciliate the mother, and in this way were ultimately admitted to the freedom of the village. On the whole they appeared amiable and good-natured, wily withal, and not indisposed to pilfer if they thought they were unobserved, and when detected gave back the article, very good-humouredly treating the matter

as rather a good joke. The division of labour was rather in favour of the men, whose duty seemed confined to house building, fishing, and management of canoes, while on the women fell all the agricultural work, carrying water, cooking, collecting shell-fish, and the general interior domestic economy. Cannibalism was undoubtedly practised, as on several occasions the wearers of lower-jaw bracelets went through the motions intimating that they had eaten the original owner, and on other occasions skulls and bones blackened by charring in the fire were seen. But whether cannibalism was only practiced in the case of enemies, those who had met a violent death or as an ordeal, could not be ascertained. Cannibalism is common in all the Papuan group, as while cruising through the New Hebrides and Solomon Islands, a native of Sandwich we had on board, who had acquired some knowledge of English, used to warn us against landing on certain localities, by saying, "He bad man there, he bite."

Dress and Ornaments.—The common dress of the male, as far as Humboldt Bay, was a T-bandage about 6 inches broad, and secured round the waist by a hair band, or one made from the Rizomorpha root. At Humboldt Bay nothing was worn by the men except a small gourd having an aperture into which the glans penis was inserted. The women wore as far as Huon Gulf a grass petticoat reaching from waist to knees, similar to the Liku of Fijii, being composed of separate strips, and which vibrated in a most ludicrous way when they walked. At Huon Gulf Tapa made its appearance, a strip of which was worn round the loins; sometimes an additional grass petticoat was worn over the shoulders. Tattooing was confined to the women, the pattern being a series of fine blue vertical lines, lace-like in appearance, over chest and abdomen; with exception of this decoration all other ornamentation was the property of the male. The description of one dandy of the period will suffice for all. To begin with, an enormous mop in the shape of a head of hair carefully combed and frizzled out about a foot in length. A comb with flying streamers of pandamus lace, and projecting about a foot, stuck in the crown, the name of the comb being "kōsi," and a hibiscus flower stuck on the hair over the left ear. Both ears being loaded with rings of tortoise-shell or carved pieces of cocoa nut, or a roll of green stuck through the aperture in the lobe. The septum of the nostrils perforated, through which is passed a piece of coral or bone, having also pendants, and known amongst sailors as a *spritsail-yard*. Round the neck rows of teeth, shells, and pieces of aromatic bark are hung; while on the left upper arm, bracelets of banana fibre or shell, into which is

stuck an elaborately carved betel spoon, while over the same shoulder and in the arm-pit a small netted bag containing the betel box, holding the lime, pepper, leaves and nuts, and an obsidian knife, is placed, the ordinary T-bandages fastened by a girdle of ovula shells, kneelets and anklets of the same, and a few streaks of white and red paint over the face complete the get-up in the case of a commoner; while that of a chief had in addition a round plate of shells on the forehead, a long crimped pandamus leaf, treated somewhat as ladies do ribbons and attached to the bracelet on the arm, with a round shell worn over left groin, all of which were characteristic of rank. Of course there was individual taste displayed in choice of ornaments, such as cassowary and bird of paradise feathers, which in some places were worn as headdresses, and all displayed a great desire to obtain pieces of red cloth, which they twisted amongst their hair, and which they were always clamouring for, calling it "Tara-Tara."

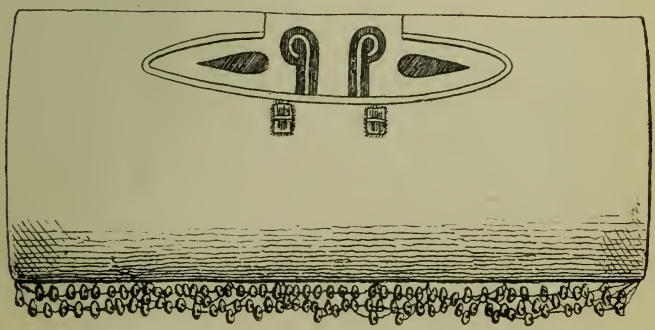
Implements and Instruments.—All their tools were of stone, iron up to our arrival being unknown. They, however, soon found out the superiority of our tools, and were most anxious to possess any sort of iron, such as pieces of iron hoop, which they sharpened and hafted in the same way as their stone tools. These were of three kinds, an axe made of polished stone (nephrite) and set obliquely in a handle, frequently elaborately carved, adzes of the same material, and chisels; with the axes they cut off the branches of trees and chop through the bark, using fire for felling down, while the chisels were used as wedges, and the adzes to hollow out and trim the planks to the required form. At Lesson Island, adzes made from the Tridacna shell were obtained similar to those in use at Ualan and some of the Line Islands. To their own stone axes they applied the name of "tauchaman," but to ours "elam," iron being generally called "dim-dim." They carried their axes always with the handle on chest and stone resting on side of neck. The stone was apparently found in the beds of rivers, as on one occasion I was able to procure the unpolished material in its primitive form and water-rolled. The process of manufacture was rubbing down to the required shape on a piece of coarse sandstone, blocks of which were to be found in every village, grooved and scored from constant friction. As on this occasion the canoe from which the above were procured was loaded with adzes and axes in different stages as regards finish, the presumption may be hazarded that there is some attempt at division of labour or artizanship amongst this otherwise primitive people. The only musical instruments found were a drum made from the skin of a large lizard (monitor), called boila, Pandean pipes, two varieties,

a bamboo jews-harp, and a trumpet made by perforating a triton-shell; noises were also produced by striking the ground with pieces of hollow bamboo, with which they sometimes accompanied their songs.

Weapons.—These consisted of clubs with stone heads, of three kinds, one disc-shaped, called "quepi," one round, and one stellate. A wooden club, resembling the patoo-patoo of the Maoris, called "yera"; a wooden sword called "sāmān"; a spear, about 10 to 12 feet in length, the point of wood sometimes barbed, and thrown from the hand with a quivering motion (no thrower in use) and called "kākīām"; slings made from the Rizomorpha or banana, and carried round the neck, the stones used being ordinary beach pebbles, the native name for the sling being "wam"; these and a wooden shield were the only weapons met with up to arrival in Astrolabe Bay, where bows 5 to 6 feet long first made their appearance, the string a split piece of rattan, and the arrow a reed of about 6 feet long, pointed with bone. When in use, one end of the bow was grasped by the right great toe—no poisoned arrows were seen. The only occasion when an attack of a warlike nature was observed, took place at Traitor's Bay, entrance to Huon Gulf, the attacking party advancing in two lines, one armed with spears, the other with clubs, carrying shields, singing a war song, blowing conches, and beating drums. A naval engagement was also witnessed off East Cape, in which only slings and stones were used, no attempt at either ramming or boarding taking place, the air being darkened with stones, neither party coming to close quarters, but both retiring in good order, after about half an hour's engagement. The traces of war were always to be observed by the decapitation of cocoanut trees, being the method adopted by the enemy for cutting off the supplies; but no extensive devastation was noticed, war being only between one village and another, extensive combinations not existing, a feature favourable as regards future colonisation.

Food.—On the slopes near the villages numerous small clearings were to be seen neatly fenced in, on which yams, sweet potatoes, saro, plantains, maize, and other esculent plants were cultivated. The ground was first cleared by fire, and then broken up by digging with pointed sticks, the latter being accomplished by female labour. The cocoa nut and sago palm being their principal stay, pig, kangaroo, cuscus, and turtle forming only an occasional addition to the bill of fare. In the main they appeared to be vegetable feeders, a sort of vegetable soup, composed of yams, plantains, grated cocoa nut, and sago constituting their usual noonday meal. This was prepared by heating over the fire in earthenware vessels, and





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was the only form of cooking practised, as far as observed. The spoon used was a valve of the pearl oyster, the native name for which was "kēnāi," pig was called "poro-poro," water "kai wan," and to eat "nam-nam." The use of betel was universal all along the coast, but no other form of stimulant was observed; tobacco in any shape they would not touch, and were evidently unacquainted with its use. They were also unaware of the preparation of palm toddy, so common among the Malays. Heaps of screw-shells were observed at the edges of lagoons, forming a sort of kitchen middens, and traces also of native encampments, resorted to at certain periods of the year, evidently to collect such food.

Such are the few notes I have attempted to throw together of every-day life, as observed amongst a primitive people where the introduction of civilisation has not taken place and effaced, as it has elsewhere, the condition of early childhood from off the largest portion of the world. I hope, in conclusion, that others, with better opportunities and increased knowledge, may explore further, without delay, this field, rich in survivals of primitive life, which will soon pass away with the improvements the colonist of the southern hemisphere brings in his train.

Description of Plate I. Vol. VI.

Objects from New Guinea.

Fig. 1.—Wooden sword or club, with plume of cassowary feathers at the end, carving on one side.

Fig. 2.—Gourd ornament, worn by the male natives.

Fig. 3.—Axe with green stone fixed into it.

Fig. 4.—Pulley used in boats.

Fig. 5.—Wooden sword or club.

Fig. 6.—Small drum, with head of iguana hide.

Fig. 7.—Carved wooden stirrer for sago.

Fig. 8.—Betel spoon.

Fig. 9.—Shield, with carved ornament and fringe of cowrie shells.

Many other objects, as pillows, human jawbone bracelets, combs, armlets, earrings, &c., amongst those exhibited, have been already figured in the voyages of H.M.S. "Fly," London, 1847, and H.M.S. "Rattlesnake," London, 1852, and also in a Dutch work, by the Netherlands Indian Commissioners, published at Amsterdam, 1862.

Discussion.

Col. Lane Fox said: The present paper is, I think, one of the most valuable the Institute has lately received. It is not often that we have original observations upon an entirely new tribe,

and still less often are those observations made by so competent an observer as Dr. Comrie. Amongst the points most worthy of notice are the remarks upon the hair of this particular branch of the Papuans. We had been led to suppose that the hair grew in tufts like the bristles in a shoe-brush, but Dr. Comrie's observations tend to the view that this peculiarity was the result of the mode of dressing, and not congenital. His remarks upon the section of the hair appear to tally very accurately with the researches of Dr. Pruner Bey, which seem to show that the long-sectioned, tape-like formation is common, more or less, to the whole of the black, long-headed races of mankind, whilst that of the yellow round-headed Mongols is distinguished by a round section, and the Melanochroi by a more or less oval form, with greater or less varieties of elongation. We remember how, some time ago, anthropologists were amused by the coincidence noticed by Dr. Thurnam and others, viz. long heads in long barrows, and round heads in round barrows. Now, viewing the general tendency of the facts adduced in Dr. Pruner Bey's table of hair forms, it would almost seem as if we were coming to the conclusion of long heads, long sectioned hair, round heads, round sectioned hair. Dr. Comrie thought that the peculiar long form of the snout of the Papuan dog had been developed through natural selection, from their habit of feeding on the fruit of the cocoa nut; but if this were the case, we ought to find the cocoa nut largely distributed over the Arctic region, for the snout of the Esquimaux dog was of the same long form. Might we not rather attribute this to the fact that the dogs of savages, in all parts, were of an earlier or less cultivated type, and showed more affinity to the wolf than the more civilised specimens of the canine race. Dr. Comrie noticed that in New Guinea, as in other islands of the Pacific, the coast tribes were fairer than the inhabitants of the interior, and he seemed inclined to attribute this rather to local causes, such as feeding upon fish, than to admixture of race; but although we must attach great weight to an opinion so carefully formed upon the spot, I think we must hesitate before accepting this conclusion. It may be remembered that not long ago Dr. Mullens, in an interesting paper on the inhabitants of Madagascar, noticed a somewhat analogous distinction between the colour of the coast and interior tribes of that island, the coast tribes being, however, in this case, the darker of the two. This Dr. Mullens was also inclined to account for by purely local causes, the inhabitants of the low, feverish coast districts having acquired a darker hue than the inhabitants of the interior highlands. But may we not here see another cause operating to produce this result? In Madagascar the immigrants from the continent of Africa were a black race, whilst in Papua the immigrants from the eastward were a light race. Hence the difference observable in the two regions, the coast tribes, being of necessity more exposed to the effect of crossing, approach in both cases to the colour of the immigrants. That such connection with foreign races has actually taken place in New Guinea follows, I think, as a certain result of the fact that

throughout Polynesia the canoes which conveyed the different races from island to island were of the same form, the outrigger, in one variety or another, being prevalent throughout. There is also an almost perfect identity in certain forms of ornamentation in New Zealand and New Guinea, which seems to afford proof that frequent intercourse between those islands must have existed in former times. One more point in Dr. Comrie's valuable paper we must notice here, his view that hair, next to language, is to be regarded as the surest test of race. I think it can hardly be admitted that language is in itself at all a test of race, although undoubtedly race and language must frequently have flowed in the same channels. Dr. Sayce has, I think, fully disposed of the view that language could be taken by itself as evidence of racial connection, in his paper upon that subject.

Mr. Bouverie Pusey said: The account of the New Guinea dog. in the interesting and able paper which had been read, reminded him very much of the Australian dingo, and he wanted to know whether Dr. Comrie thought there was any connection between them; also whether the New Guinea domestic hog mentioned in the paper had any connection with a peculiar species generally supposed to inhabit New Guinea, and called Papuiensis.

Lieutenant Armit, R.N., said: Dr. Comrie, after rather numerous and exact observations, made while serving on board H.M.S. "Basilisk," has furnished this meeting with some most valuable anthropological notes on the natives of the south-eastern peninsula of the island of New Guinea. Not the least remarkable of the facts now brought to light is the "rite of circumcision," practised by the Brown Papuans, among whom Dr. Comrie's observations were made. In Australia, and I believe also in New Zealand, and in some of the islands of the South Pacific Ocean, this *historical rite*, if I may so call it, is not unknown. As far as I can learn, the Papuans are divided into four peoples, and each people is subdivided into tribes, which are constantly at war with each other, only uniting to resist the attack of the neighbouring nation, if I may so call them. These peoples are:—(1) The true Papuan or Frizzly Head of the west and south-west coasts; (2) The Alfoerer, or Hoorafora, forming the hill tribes of the interior; (3) The Brown Papuans visited by Dr. Comrie; (4) The Papuan-Malays of the north coast, subject to the authority of the Sultan of Tidore, and professing Mohammedanism. The following brief *resumé* of Dutch exploration during the present century may not be uninteresting. The geographical knowledge in our possession regarding New Guinea goes to show that the southern shores of that island abound in low swamps covered with mangrove trees, but that its south-eastern extremity and northern coasts are bold and steep, their cliffs plunging vertically into the waters of the Pacific Ocean to a depth at times measured by hundreds of fathoms. Stretching away from these cliffs into the interior are plains and plateaux which rise gradually to form mountain ranges with altitudes varying from 5,000 to 14,000 feet at some 30 to 50 miles from the coast. Beyond

these mountains still higher ranges exist whose summits are covered with clouds, which render it impossible to accurately determine their altitudes, which in places has been ascertained, as shown on the Admiralty chart 2,759A, to be over 16,000 feet. This high range forms the backbone of the island, and runs from Mount Owen Stanley (13,000) in the south-east to the Charles Louis mountains in the north-west, of which the most distant peak visible from the seaboard is 16,730 feet. To the southward these hills are obscured from view by a high coast range, from the foot of which some thirty or forty miles of mangrove swamp runs into the Torres Straits and Gulf of Papua. These mud flats are again cut up, by the streams descending from the mountains, into innumerable islands, and these streams, at times uniting, have cut wide estuaries for themselves into the sea. Off the mouths of these estuaries islands have in many cases been formed by the *debris* forced out by the river. In some places, such as Hall Sound, high islands, such as Yule Island, appear to have been thrown up by volcanic action. Such a locality must needs be a hotbed of fever, and all authorities on the subject agree in holding the southern coast of New Guinea to be unfit for European habitation. But the north and north-east coasts present fair prospects of affording both a healthy and pleasant climate. In 1828 the Government of the King of the Netherlands took possession, by proclamation, of 118 miles of the south-west coast of New Guinea, abreast of Port Essington, on the north coast of Australia. The Dutch corvette "Triton" was sent to survey the new territory, and was the first expedition to visit the island since the days of Captain Cook. It appears to have met with a very friendly reception from the natives, which was in strange contrast to the experience gained of this same people by the early navigators of these regions, if the names with which they baptised their principal discoveries can be taken to represent the treatment they received. Thus, one of the large rivers discovered in early days was called "Moordenaar," or "murderer;" another they named "Doodslaager," or "slaughterer." Captain Cook was little less fortunate when he visited its shores in the "Endeavour." Indeed, no record exists of friendly intercourse having been held by Europeans with the natives of the south and south-west coasts until the year 1828, when the Dutch Government, during one of those spurts of colonial activity which seem to attack western nations periodically, despatched the "Triton" to survey its newly-annexed territory, with a view to founding a settlement thereon. Reaching the western peninsula of New Guinea, this expedition discovered a remarkable range of mountains which rise nearly perpendicularly out of the sea to a height of 5,000 feet, and form a lofty backbone to the island, and which apparently runs through its centre from west to east, as it is again found in the south-eastern peninsula, where Mount Owen Stanley attains an altitude of 10,000 feet, and then gradually runs down into the Pacific Ocean in Milne Bay, lately surveyed by Captain Moresby, of the Royal Navy. The Dutch officers named this range the "Sneewe Bergen," or Snowy Moun-

tains, owing to three remarkable table-topped summits some sixty miles inland, computed by them to be 20,000 feet high, appearing to be covered with snow. This range creates a basin in the southern half of the island, within which the drainage from the mountains would form swamps and lakes, or lagoons. Should the coast range be a "broken range," these reservoirs would feed large rivers, such as that discovered by McFarlane, and named the "Baxter," while the reservoirs themselves would ever be replenished by the snow-clad summits, and impenetrable mountain sides arresting the warm, moist south-east trade wind of this region, which, having travelled over the South Pacific Ocean and absorbed all its rising vapour, would now find itself arrested in its course towards the Equator, and would then be forced to deposit its moisture over these very mountain slopes. This would account also for the extensive mud flats and mangrove swamps of the southern and south-western coasts of New Guinea, wherein the decomposing vegetable matter is of itself sufficient cause to produce epidemic diseases. It was on the south and south-western coasts that the Dutch Government determined on forming its first settlement; and in 1828 a landing was effected, at the urgent request of the natives themselves, in Triton Bay. The swampy nature of the land on which the fortified village was erected, and the oppressive nature of the atmosphere, owing to the inlet receiving no sea breeze, seem to have foreboded the fate of this Dutch settlement even before the garrison had been landed. It was abandoned in 1838, when the garrison was removed to Wahaai, a small port on the north coast of Ceram, which was much frequented by English and American traders. During the ten years that the Dutch remained in Triton Bay among the Outanata tribe of Papuans the most friendly relations existed between the two peoples. Theft was never heard of, and no single act of hostility ever committed. The presence of the Dutch was a check on the Malay, Chinese, and Ceramese semi-piratical expeditions which, under the guise of traders, periodically visited these parts, but who in reality were slavers and pirates of the lowest class. Since the European settlement on this coast was abandoned these expeditions have again made their appearance, but as they do not enter the Torres Straits very little is ever heard of them. In 1850 the Dutch Government, having purchased the right of "suzerainty" over the northern and part of the north-eastern coast of New Guinea from the Sultan of Tidore, sent Lieutenant Bruijn Kops, in command of the "Circe," and an expedition, to found a settlement in Humboldt Bay. This expedition was not successful, and all it did was to erect posts supporting metal shields embossed with the Netherlands coat of arms at various points along the coast. A gale from the south-east and the strong lee current which here prevails drove it back to the island of Gilolo. In 1852, however, the settlement was effected, and Port Humboldt was proclaimed a Dutch colony. The garrison of the new colony was ill-chosen. It consisted of a party of burghers, or native militia, of Sernate, a people by no means

calculated to inspire respect in the stalwart and energetic Papuans of this coast. In Triton Bay the Dutch had to contend against obstacles which no human force could overcome, but which human foresight might have avoided. In Port Humboldt the Dutch entered upon new ground. Here no obstacles barred their way to success, but the cruelty and rapacity of their boors so incensed the natives that a desultory war was the result. The natives of the coast were either butchered or were driven to take refuge among the hill tribes, to whom they became slaves, and the cruelty of the Dutch has thus become proverbial along the whole length of the north-east coast of New Guinea. These natives the English Government claims as its subjects, and yet they know it not, but live in daily fear of their sworn enemy descending upon them, unaware of the fact that an imaginary geographical line of demarkation protects them from the enemy they so much dread. When the Dutch first visited these parts they found the natives inclined to be most friendly, and were received with open arms. The following simple narrative of Lieutenant Bruijn Kops is most strikingly illustrative of the then existing state of feeling:—

> One evening when we went on shore all the children of the village were collected together, and beads were thrown among them. Not only the children, but women, men, and even some of the chiefs scrambled for the beads, and ran from every quarter to obtain a share. All were on their knees in the sand, and showed how much they prized these presents by the zeal and attention with which they sought for them, and by their merry laughter when they were fortunate. Although these beads were of great value in their estimation, the scrambling was carried on without the personal contests which in civilised Europe would have been the result of an unequal distribution of presents. Walking along the beach after this distribution, I entered into conversation with a native who had learned a little Malay, and who invited me into his house, where I was led into the room which serves as a dwelling-place for the family. I thought all the women would take to flight, and was not a little surprised to find that they sat down close to me, and observed me very attentively, but without troublesome intrusion. Thus I sat in the midst of six women, three of whom were young, and whom, on account of their beautiful eyes, clear, white, and regular teeth, happy, laughing faces, round shoulders and arms, fine hands, beautiful bosoms, and well-formed limbs, deserved the name of beautiful, not only in the eyes of Papuans, but also in those of Europeans. The frankness with which I was received struck me, as it was entirely unexpected. They brought me a dish of papeda (sago-flour steeped in water), some roast fish, yams, and fruit, requesting me to partake of it, which I did to please them. Seeing a ring on my finger, one of the girls tried to draw it off to examine it, but not succeeding, I drew it off myself, and handed it to her. After examination it was returned to me with care. I mention all this because the familiarity with which I was treated astonished me, and gave me a very favourable opinion of these people.

Australia is separated from New Guinea by the Torres Straits, only some 80 miles broad. The geological formation of the southern portion of New Guinea is said to be identical in character with that of the Australian Continent. Thus, by reason of their proximity, and their possessing so many natural resources in common, these two island continents may be said to be one territory; and Nature herself seems to suggest that the power which already holds sovereignty over the one should also have dominion over the other

Mr. Hyde Clarke and other members joined in the discussion, and Dr. Comrie, in reply, said: Colonel Lane Fox's remark, that all over Polynesia the canoes had outriggers, was not quite correct, as the canoes of the Solomon Islands had no outriggers, and were large and well constructed, in fact, models of boat-building as regarded their lines and graceful appearance on the water. He was unable at present to answer the question as to whether the Papuan pig was a distinct species, or, as suggested by Professor Huxley, derived from the westward. He had, however, given a specimen of the skull to Professor Flower, whose opinion he trusted he would be able to state at some future meeting. With regard to circumcision, the custom appeared to be universal all along the south-east coast, and he believed the operation was performed with a piece of obsidian. The tree-climbing he had often seen, and no band was ever used round the body, but the natives seemed to run up like cats, no doubt aided by the great mobility and prehensile character of their toes, which enabled them to hold on without requiring to bring any other part of the body into apposition with the tree, except the hands and feet. With regard to Captain Lawson's book, he did not believe that there ever was such a person, or that he had ever been to New Guinea; the book was a myth and romance from beginning to end. He would only refer to one statement, that of ascending a mountain 25,000 feet high in a day. He need only appeal to anyone who had any Alpine experience, as to the wildness and improbability of this. Why, he had known, in ascending only 1,000 feet through what was considered open country (with exception of the dense grasses that towered feet above one's head, and in getting through which one's hands and face were cut to pieces), owing to the heat and moisture, the strongest men of the party exhausted and forced to rest before reaching the summit, nay, in many cases positively sick. As regards the Jewish descent of the Papuans, this statement was made of races in all parts of the world, and the early navigators and travellers were always looking out for traces of the lost tribes, in fact, he believed Dampier states there existed a white colony in New Guinea believed to be the identical lost tribes that have been so long an ethnological puzzle. As regards the dwellings pulled down on the occasion of a death, the stay of the ship was too short to admit of observing whether they were ever erected again. As regarded the language, he thought it strongly bore out the bow-wow and pooh-pooh theory, as the name for a pig was poro-poro, dog bow-wow, axe dim-dim, and eating nam-nam, all suggestive of onomatopœa.